## WHAT IS CLAIMED IS:

- A process analytic system comprising:
  - a sample handling system adapted to couple to a process analyzer, the sample handling system comprising:
    - a sample probe for receiving a sample, the sample probe having a distal end for exposure to a sample stream, the sample probe including:
      - an eductor inlet coupleable to a
         solvent source and coupled to an
         eductor disposed at the distal
         end;
      - a sample collector coupled to the
        distal end of the probe opposite
        the eductor such that at least
        some solvent emitted by the
        eductor is collected by the
        collector, the collector being
        coupled to a sample and solvent
        outlet adapted to couple to a
        separation device;
  - a separation device coupled to the sample
    and solvent outlet to remove the
    solvent from the sample stream; and
    at least one analyzer coupled to the separation
    device to receive that sample and provide
    an analytical output based upon the sample.

- The system of claim 1, wherein the solvent is water.
- 3. The system of claim 1, wherein the solvent is steam.
- 4. The system of claim 1, wherein the probe is adapted to mount at an angle with respect to vertical.
- 5. The system of claim 1, wherein the angle is in excess of 90 degrees.
- 6. The system of claim 5, wherein the angle is about 120 degrees.
- 7. The system of claim 1, wherein the sample probe further includes an inlet and outlet for cooling fluid, wherein the cooling fluid flows within the probe to cool the probe.
- 8. The system of claim 7, and further comprising an internal cooling passageway coupled to the inlet and adapted to convey relatively cooler fluid to the distal end of the probe.
- 9. The system of claim 8, wherein the probe is a fluidically sealed enclosure and wherein the cooling

fluid outlet is disposed near a proximal end of the probe.

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- 10. The system of claim 9, wherein the enclosure is cylindrically shaped.
- 11. The system of claim 1, wherein the sample stream is a low pressure sample stream having a pressure less than about 3 psig.
- 12. The system of claim 11, wherein the sample stream has atmospheric pressure.